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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/589,237	08/14/2006	Koichi Hirota	062891	6962
38834 7590 03/25/2008 WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP 1250 CONNECTICUT AVENUE, NW SUITE 700 WASHINGTON, DC 20036				
EXAMINER SHEEHAN, JOHN P				
ART UNIT 1793		PAPER NUMBER		
MAIL DATE 03/25/2008		DELIVERY MODE PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/589,237

**Applicant(s)**

HIROTA ET AL.

**Examiner**

John P. Sheehan

**Art Unit**

1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SI/02)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date 8/14/2006; 3/5/2007

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Amendment Submitted August 14, 2006***

2. The first listed amendment to the specification requests the replacement of "the paragraph {0020} on page 3, line 3". It is not clear where in the specification applicants intend this amendment to occur in that on page 3 of the specification there is no paragraph [0020] nor at page 3, line 3 is there a paragraph that is similar to the amendment. It is questioned whether applicants intended this amendment for page 6 of the specification?

### ***Specification***

3. The amendment filed August 14, 2006 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:
  - I. In the amendment to page 3, the new nitrogen upper limit of "0.05 wt%" does not find support in the application as filed.

- II. In the amendment to page 9, line 19, the new nitrogen proportion of "0.012 wt%" does not find support in the application as filed.
- III. In the amendment to page 9, line 19, the new nitrogen proportion of "0.013 wt%" does not find support in the application as filed.

Applicant is required to cancel the new matter in the reply to this Office Action.

***Claim Objections***

- 4. Claim 1 is objected to because of the following informalities:
  - I. In the Markush group recited in the last two lines of claim 1, Cr is listed twice. Is there a reason for this? Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

- 5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- 6. Claims 1 to 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sagawa et al. (Sagawa '948, EPO Document No. 0 106 948, cited in the IDS submitted August 14, 2006).

Sagawa '948 teaches a rare earth-transition metal-boron alloy containing at least one rare earth metal, cobalt, boron, iron and M in proportions that overlap the

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proportions recited in the instant claims (page 6, the first full paragraph). Sagawa '948's M element encompasses Al, Zr, Hf, Ti, Cr, Nb, Mo, Sn, V, and W as recited in the instant claims in proportions that overlap the proportions recited in the instant claims (page 7, lines 11 to 16). Sagawa '948 teaches that the disclosed rare earth-transition metal-boron alloy contains up to 3.5% Cu, up to 4% C and up to 1 % O as impurities ( page 19, lines 16 to 22) which overlaps the Cu, C and O proportions recited in the applicants' claims. Sagawa '948 further teaches that fluorine and nitrogen are also impurities in the disclosed rare earth-transition metal-boron alloy (page 20, lines 10 and 18). It is noted that Sagawa '948 does not disclose the level of the fluorine and nitrogen impurities. However, in view of the fact that the applicants' claims recite very small amounts for the minimum fluorine content of 0.001 wt% (10 ppm) and minimum nitrogen content of 0.002 wt% (20 ppm), the fluorine and nitrogen proportions recited in the applicants' claims do not necessarily distinguish over impurity levels of fluorine and nitrogen.

Sagawa '948 and the claims differ in that Sagawa '948 does not teach the exact same proportions as recited in the instant claims.

However, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the alloy proportions taught by Sagawa '948 overlap the instantly claimed proportions and therefore are considered to establish a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art to select any portion of the disclosed ranges including

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the instantly claimed ranges from the ranges disclosed in the prior art reference, particularly in view of the fact that;

"The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages", In re Peterson 65 USPQ2d 1379 (CAFC 2003).

Also, In re Geisler 43 USPQ2d 1365 (Fed. Cir. 1997); In re Woodruff, 16 USPQ2d 1934 (CCPA 1976); In re Malagari, 182 USPQ 549, 553 (CCPA 1974) and MPEP 2144.05.

7. Claims 1 to 3 rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al. (Yamamoto '720, US Patent No. 6,296,720, cited by the Examiner) in view of Satoru et al. (Satoru '479, Japanese Patent Document No. P3009687, cited in the IDS submitted August 14, 2006).

Yamamoto '720 teaches a rare earth-transition metal-boron alloy composition that with the exception of fluorine overlap the alloy composition recited in each of applicants' claims (column 2, lines 1 to 16).

Satoru '479 teaches that adding fluorine to a rare earth-transition metal-boron alloy improves the corrosion resistance of the rare earth-transition metal-boron alloy (Abstract).

Yamamoto '720 and the claims differ in that Yamamoto '720's alloy does not contain fluorine as recited in applicants' claims.

However, one of ordinary skill in the art at the time the invention was made would have been motivated to add fluorine to Yamamoto '720's rare earth-transition metal-

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boron alloy so as to improve the corrosion resistance Yamamoto '720's alloy as taught by Satoru '479.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Sheehan whose telephone number is (571) 272-1249. The examiner can normally be reached on T-F (7:30-5:00) Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John P. Sheehan/  
Primary Examiner  
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JPS

